

CLAIMS

1. A server device for use with a client device in a movie distribution system, the server device comprising:

a video recording processing section for recording a movie and generating not only movie data, made up of predetermined data units, but also management information in which a playback duration and a data size are associated with each other with respect to each said data unit;

a storage medium to store the movie data and the management information thereon;

a receiving section, which receives a request to get the management information and a request to transmit the data unit from the client device;

a request processing section for reading the management information and the data unit in response to the request to get and the request to transmit, respectively, and instructing that the management information and the data unit be transmitted; and

a transmitting section for transmitting the management information and data unit instructed,

wherein if the request to transmit the data unit has been received after the management information was transmitted, the request processing section instructs that at least a piece of the newest management information be transmitted with the data unit selected by the request to transmit.

2. The server device of claim 1, wherein the request processing section instructs that a piece of the management information, which has been updated after the management information was transmitted and until the at least one data unit selected by the request to transmit is transmitted, be transmitted.

3. The server device of claim 1, wherein when the video recording processing section stops recording the movie, the request processing section instructs that a notification of the stop of recording be sent and the transmitting section sends the notification with the data unit selected by the request to transmit.

4. The server device of claim 3, wherein the transmitting section transmits at least two of: the data unit; at least the piece of the newest management information; and the notification, that are stored in separate sections of a message so as to be distinguished from each other.

5. The server device of claim 1, wherein the movie data concerns a stream compliant with one of the MPEG standards and the data unit is a video object unit.

6. The server device of claim 1, wherein the video recording processing section generates management information in which playback-related attributes of the movie are further associated with each said data unit.

7. A client device for use with a server device in a movie distribution system, the server device recording a movie and storing not only movie data, made up of predetermined data units, but also management information in which a playback duration and a data size are associated with each other with

respect to each said data unit, the client device comprising:

a transmitting section for sending the server device a request to get the management information and a request to transmit the data unit;

a receiving section for receiving the management information and the data unit from the server device that has responded to the request to get and the request to transmit, respectively;

a playback control section for finding a data unit that is needed to make a streaming playback by reference to the management information and instructing that the request to transmit be sent; and

a movie output processing section for playing back the movie based on the data unit received,

wherein the receiving section receives not only the data unit but also at least a piece of the newest management information from the server device.

8. The client device of claim 7, wherein the receiving section receives a piece of the management information, which

has been updated after the server device transmitted the management information in response to the request to get and until the at least one data unit selected by the request to transmit is transmitted.

9. The client device of claim 7, wherein the receiving section receives not only the data unit but also a notification of stop of recording from the server device.

10. The client device of claim 9, wherein the receiving section receives a message, in which at least two of: the data unit; at least the piece of the newest management information; and the notification, are stored, and distinguishes and retrieves the at least two of them.

11. The client device of claim 7, wherein the movie data concerns a stream compliant with one of the MPEG standards and the data unit is a video object unit.

12. The client device of claim 7, wherein the receiving

section receives management information in which playback-related attributes of the movie are further associated with each said data unit, and

wherein the movie output processing section plays back the movie in accordance with the attributes and the data units.

13. A movie distribution system for allowing a client device to receive movie data, made up of predetermined data units, from a server device and to make a streaming playback of the movie,

wherein the server device includes:

a video recording processing section for recording a movie and generating not only movie data, made up of predetermined data units, but also management information in which a playback duration and a data size are associated with each other with respect to each said data unit;

a storage medium to store the movie data and the management information thereon;

a server receiving section, which receives a request to

get the management information and a request to transmit the data unit from the client device;

a request processing section for reading the management information and the data unit in response to the request to get and the request to transmit, respectively, and instructing that the management information and the data unit be transmitted; and

a server transmitting section for transmitting the management information and data unit selected, and

wherein the client device includes:

a client transmitting section for sending the server device the request to get the management information and the request to transmit the data unit;

a client receiving section for receiving the management information and the data unit from the server device that has responded to the request to get and the request to transmit, respectively;

a playback control section for finding a data unit that is needed to make the streaming playback by reference to the management information and instructing that the request to

transmit be sent; and

a movie output processing section for playing back the movie based on the data unit received,

wherein if the request to transmit the data unit has been received after the management information was transmitted, the request processing section of the server device instructs that at least a piece of the newest management information be transmitted with the data unit selected by the request to transmit and the client receiving section receives not only the data unit but also at least the piece of the newest management information from the server device.

14. A method to be carried out by a server device for use with a client device in a movie distribution system, the method comprising the steps of:

recording a movie and generating not only movie data, made up of predetermined data units, but also management information in which a playback duration and a data size are associated with each other with respect to each said data unit;

storing the movie data and the management information;
receiving a request to get the management information
from the client device;

transmitting the management information in response to
the request to get;

receiving a request to transmit the data unit that has
been selected by the client device by reference to the
management information transmitted; and

reading the selected data unit in response to the request
to transmit and transmitting the data unit, and

wherein if the request to transmit the data unit has been
received after the management information was transmitted, the
step of transmitting the data unit includes transmitting at
least a piece of the newest management information with the
data unit selected by the request to transmit.

15. A method to be carried out by a client device for
use with a server device in a movie distribution system, the
server device recording a movie and storing not only movie
data, made up of predetermined data units, but also management

information in which a playback duration and a data size are associated with each other with respect to each said data unit, the method comprising the steps of:

 sending the server device a request to get the management information;

 receiving the management information from the server device that has responded to the request to get;

 finding a data unit that is needed to make a streaming playback by reference to the management information and instructing that a request to transmit be sent;

 receiving the data unit from the server device that has responded to the request to transmit; and

 playing back the movie based on the data unit received,

 wherein the step of receiving the data unit includes receiving not only the data unit but also at least a piece of the newest management information from the server device.